

> 617 Pierce Street, Śle 201 Śloux City, IA 51101 P 712:224.4613 F 712:224;4615

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November 28, 2016

Mr. Curtis Christiansen, Review Engineer Nebraska Department of Environmental Quality Suite 400, The Atrium 1200 N Street PO Box 98922 Lincoln, NE 68509-8922

RE: Force Main – US 20 to Bennet Lift Station South Sioux City, NE NDEQID# 65775 MEC No. 60316004

Dear Mr. Christiansen,

This letter is in response to your comments received on 11/23/16 regarding the above project. We have the following responses to your comments:

- 1. In our Engineering judgement, the dip in the forcemain between station 5+50 and 8+50 does not require an air release valve. The dip does not create a high point in the main.
- 2. At Sta 6±61, the pipe will be grade adjusted via deflection only, no fittings. All other fittings will have thrust blocks installed.
- 3. The riser pipe will have an 8-inch flange adapter installed to allow connection to the temporary pump station discharge hose.
- 4. The force main will be tested to 100 psi, which is 2.5 times the maximum operating pressure, using AWWA standard C605-13.
- 5. The pipe will be bedded on native soil meeting AWWA standard C-605-13 for Class IV material.
- 6. Within the last week it was learned that a separate City project involves re-locating the existing 12-inch water main further south, from approximately Sta 20+00 to Sta 28+00, which will be in conflict with the proposed force main. Therefore, we have modified the proposed force main alignment further north, into the gravel paving on E.39th St. street. This also allows us to maintain 10-feet separation from the water main at all locations without any casing.
- 7. Two (2) hard copies will be submitted with proper signing and dating.

Please let us know if you have any additional questions or comments.







Michael Washburn, P.E. Project Manager

Cc: Mr. Bob Livermore, City of South Sioux City

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